

Application No. 10/687,026
Amendment dated September 1, 2005
Reply to Advisory Action of August 24, 2005

REMARKS:

Status Of Claims

Claims 1-44 were previously pending in the application. Claims 1, 11, 19, 23, and 34 have been amended. Thus, claims 1-44 are currently pending in the application with claims 1, 11, 19, 23, 34, and 44 being independent.

Office Action

In the June 1, 2005 Office Action, the Examiner rejected claims 1-18 and 23-40 under 35 U.S.C. 102(e) as being anticipated by Michaelson et al., U.S. Patent No. 6,734,808. The Examiner also rejected claims 19-22 under 35 U.S.C. 103(a) as being unpatentable over Horvath et al., U.S. Patent No. 6,473,003. The Examiner also rejected claim 41 under 35 U.S.C. 103(a) as being unpatentable over Michaelson in view of Horvath. The Examiner also rejected claim 42 under 35 U.S.C. 103(a) as being unpatentable over Michaelson in view of Mounce, U.S. Patent No. 4,340,936. The Examiner also rejected claim 43 under 35 U.S.C. 103(a) as being unpatentable over Michaelson in view of Wyant et al., U.S. Patent No. 6,885,919. The Examiner also rejected claim 44 under 35 U.S.C. 102(b) as being anticipated by Mounce. Applicant respectfully submits that the currently pending claims distinguish the present invention from Michaelson, Horvath, Mounce, Wyant, and the other prior art references of record, taken alone or in combination with each other.

Specifically, claims 1, 11, 19, and 23 all now recite "receiving one or more

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preselected conditions from a user". Similarly, claim 34 recites "a user interface operatively coupled to the processor, wherein the user interface receives one or more preselected conditions from a user". Finally, claim 44 previously recited and currently recites "performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint in view of *preselected conditions received from a user*", emphasis added. Support for these amendments may be found, among other places, on page 6, lines 9-20:

In addition, memory 330 can further retrievably store cartographic data, including marine craft data and a variety of preselected conditions that are also used in conjunction with the marine route calculation algorithm. Preselected conditions can include user identified parameters, and any values associated with the parameters, that are associated with geographical conditions of particular interest. For example, preselected conditions a user can select include, but are not limited to, indications of land, water depth, rock(s), sandbars, shelves, tide condition, tidal data, wind conditions, weather conditions, ice, above-water obstacles (e.g., bridges), underwater obstacles (e.g., submerged wrecks), type of water bottom, and prohibited areas, to name only a few. The preselected conditions, and their associated values, can be selected and programmed by a user through, for example, controlling one or more input menus on display screen 340 with the location input 320.

Thus, these claims require the user to select the "preselected conditions" to be avoided. Specifically, the present invention analyzes map data looking for a condition to be avoided, preselected by the user.

In contrast, as previously argued, Michaelson and Horvath both analyze map data looking for a depth, or height, that conflicts with the vessel's, or aircraft's, current depth, or altitude, as determined by the device. As pervasively argued, this current depth, or

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altitude, is dynamic and is simply not *preselected* by the user. Thus, no combination of Michaelson and/or Horvath discloses, suggests, or makes obvious "receiving one or more preselected conditions from a user", as claimed in claims 1, 11, 19, and 23. Nor does any combination of Michaelson and/or Horvath disclose, suggest, or make obvious "a user interface operatively coupled to the processor, wherein the user interface receives one or more preselected conditions from a user", as claimed in claim 34, or "performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint in view of preselected conditions received from a user", as claimed in claim 44.

While Mounce does disclose a user 'selecting' some information, Mounce simply does not disclose a user providing the preselected conditions defined in the specification or used in the claims. Specifically, Mounce discloses only a user selecting whether or not to display individual pieces of information. For example, the Examiner points to Mounce's column 3, lines 2-6 and 10-12, column 4, lines 9-20, and Figure 1, items 1-5. However, column 3, lines 2-6, discloses "[t]he present illustrated embodiment shows more than a dozen readouts which are processed and displayed, and a display control unit is provided with a switch for each calculated readout by which the operator can selectively display or skip that value". Column 3, lines 10-12, discloses "[t]he main routine of the microprocessor calculates selected readouts sequentially and displays selected ones thereof so that each value is displayed for an interval of time long enough to make it easy to read". Column 4, lines 9-20, discloses:

It is still another important object of the invention to provide a system having an automatic routine which sequentially displays the calculated

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information and companion alpha identification, but which can be manually controlled by the operator to omit, or include, any selection of measured or calculated data. The system provides a set of display switches so arranged that the actuation of the switches determines which data will be displayed and which will be passed over without display, whereby the operator can elect to display in more rapid succession only those quantities which particularly interest him at the moment.

Thus, the cited portions of Mounce merely disclose which of several inputs the user wishes to be displayed. Finally, as disclosed in column 5, items 1-5 of Mounce's Figure 1 are "input parameter sensors". It should also be noted that Mounce's input sensors are variable inputs, received from sensors, rather than "preselected conditions received from a user", as claimed in claim 44.

Furthermore, Mounce simply does not disclose the other limitations of claim 44. For example, Mounce simply does not calculate a route, as defined in the specification and used in the claims. Rather, as disclosed in column 3, lines 38-56:

The microprocessor system calculates such values as actual wind direction and speed, actual boat direction and speed over the bottom, relative wind direction on the port side, or on the starboard side, leeway angle, course and distance to or from a destination mark, or course and distance from an origin at the beginning of the course being traversed by the boat, etc.

It is another very important object of the invention to provide a system capable of making calculations at a high rate from the raw data being collected as measured parameters from the sensors because the raw data is all interrelated and continuously varying, so that manually made calculations would provide only very incomplete and sparse data. The rapidity of the calculations and the high repetition rate permit effective integrating of the values to provide much more accurate information as to the progress and ultimate position of the boat with respect to an origin point or with respect to a destination mark.

In fact, Mounce' only use of the term route, in column 10, lines 46-50, relates to

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'routing' information from a RAM to a display. In any case, no route or course of Mounce is ever analyzed in view of preselected conditions received from a user. Therefore, Mounce only discloses calculation of a heading based on variable inputs received from sensors.

The Examiner might be confused by Mounce's disclosure of the user selecting which of those inputs he or she wishes to be displayed. However, such disclosure is just that. The user's selections only impact which inputs will be displayed. The user's selections have no impact on the calculation of the heading, and is therefore simply not analogous to analyzing a route in view of preselected conditions received from a user, as described in the specification and claimed in the claims. Thus, Mounce does not disclose, suggest, or make obvious "performing a marine route calculation algorithm to analyze a course between a first location and the potential waypoint in view of preselected conditions received from a user", much less the other limitations of claim 44.

Claim 19 further recites "receiving a user defined graphical filter area from the user" and "analyzing cartographic data only within the user defined graphical filter area for the preselected conditions". Support for this amendment may be found, among other places, on page 8, lines 11-25:

The marine route calculation algorithm can also be used to analyze cartographic data within a user defined graphical filter area (shown as 478 in Figure 4E). In one embodiment, the user defined graphical filter area includes a geographical area defined by a user on the display screen 340. Examples of defining the user defined graphical filter area on the display screen 340 include, but are not limited to, use of the input devices 216 or the display screen 340 itself. For example, a user could draw the user defined graphical filter area using a cursor shown on the display screen 340. The

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user defined graphical filter area can include an area smaller than the display screen 340.

The user defined graphical filter area can also include any number of shapes, including, but not limited to, square, rectangular, triangular, or circular. Other shapes for the user defined graphical filter area are also possible. The user defined graphical filter area can further be positioned and/or repositioned over any number of locations on the display screen 340.

In one embodiment, a displayed cursor under the control of one or more of the input devices 216 can be used to position and/or reposition the user defined graphical filter area over any number of locations on the display screen 340.

As stated on page 9, lines 5-13:

In one example, the dynamic analysis of cartographic data, including the marine craft data, within the defined graphical filter area for preselected conditions allows for a user to be aware of preselected conditions that may be located within the area, but not necessarily at the first location and/or along the course which the device is traveling. In an additional embodiment, analyzing the cartographic data within the defined graphical filter area can be available regardless of whether a calculated course is being used or not. In other words, a user need not have a destination point, one or more waypoints (e.g., a potential, or other waypoint) and/or a calculated a course to have the cartographic data analyzed within the defined graphical filter area.

Thus, claim 19 also requires the user to define an area to which the analysis will be limited.

In contrast, as previously argued, neither Michaelson nor Horvath disclose the user to defining an area to which analysis is limited. As previously argued, Horvath's range indicator is just that, a circle showing a fixed range from an aircraft. While the circle is useful for showing the aircraft's relation to objects, and for general situational awareness, the area within Horvath's circle is simply not analyzed for anything or even defined in any

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useful way. For example, as stated in column 7, lines 27-29, "a range ring can be overlaid on a weather, terrain, statutory map, traffic, or other display of a condition near the aircraft". Thus, Horvath simply discloses an overlay which defines, at most, a linear relationship rather than an area. As a result, Horvath does not disclose, suggest, or make obvious "receiving a user defined graphical filter area from the user" or "analyzing cartographic data only within the user defined graphical filter area for the preselected conditions", as claimed in claim 19.

The remaining claims all depend directly or indirectly from independent claims 1, 11, 19, 23, and 34, and are therefore also allowable.

Any additional fee which is due in connection with this amendment should be applied against our Deposit Account No. 501-791. In view of the foregoing, a Notice of Allowance appears to be in order and such is courteously solicited.

Respectfully submitted,

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